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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/263,114	03/05/1999	GERARD K. YEH	003971.P003	1407

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BLAKELY SOKOLOFF TAYLOR & ZAFMAN
1279 OAKMEAD PARKWAY
SUNNYVALE, CA 94085-4040

EXAMINER

HARRISON, CHANTE E

ART UNIT	PAPER NUMBER
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2628

MAIL DATE	DELIVERY MODE
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06/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/263,114

Applicant(s)

YEH ET AL.

Examiner

Chante Harrison

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-132 is/are pending in the application.
- 4a) Of the above claim(s) 1-7, 23, 24, 26, 28-36, 38 and 50-96 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-22, 25, 27, 37 and 39-49 is/are allowed.
- 6) ☒ Claim(s) 97-106, 121, 122, 124 and 126-132 is/are rejected.
- 7) ☒ Claim(s) 107-120, 123 and 125 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to communications: Amendment, filed on 3/29/07. This action is made FINAL.

2. Claims 8-22,25,27,37, 39-49,97-132 are pending in the case. Claims 8, 19, 22, 25, 27, 37, 97, 128 are independent claims. Claims 8, 19, 22, 25, 27, 37 have been amended. Claims 97-132 are newly added.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 97-106, 121, 122,124 and 126-132 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cherry et al, US 5, 629,720, 5/1997.

As per independent claim 97, Cherry discloses receiving, at a display processing system, the plurality of images (i.e. image 0-14) (Fig. 4) in a plurality of formats (i.e. cursor and image data) (Fig. 2 "206, 208") and from a plurality of sources (Fig. 2 "200"); and a processing unit (i.e. DMP) to process the plurality of images to generate the output image (i.e. the display mode processor outputting the image data based on the

display mode) (col. 4, ll. 12-25) based on processing information and instructions stored in the set of data buffers (i.e. FB1-7) (Fig. 3 "202")

Cherry fails to specifically disclose wherein the plurality of sources includes a video data source and a graphics data source.

It would have been to one of ordinary skill in the art to include a video data source and a graphics data source with the method of Cherry because Cherry teaches inputting multiple data and additionally teaches multiple systems for receiving and processing input data to be combined for output, where the input data (image and cursor) includes data generated by both a video source and a graphics source.

One of ordinary skill in the art would have been motivated to include a video data source and a graphics data source with the method of Cherry for the benefit of supporting separate display modes for multiple display windows.

As per dependent claim 98, Cherry discloses wherein the output image is generated based on a first image and a second image (col. 4, ll. 43-55, col. 11, ll. 10-35; col. 11-12, ll. 55-10), wherein said processing control input is formulated based on determining whether a first display position on a display panel at which a first pixel of the output image is to be displayed is within an active display region of the display panel (i.e. window index and frame buffer data are relative to addresses for display col. 6, ll. 8-20, where a pixel may be mapped to an address corresponding to the color look up tables col. 4, ll. 4-9; col. 3, ll. 10-15; and determining whether plane enable data col. 10, ll. 8-

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12, 50-55 and index data col. 10, ll. 20-27, 55-60 indicate an active status for a window to be displayed).

As per dependent claim 99, Cherry discloses performing active display processing (i.e. resolving dominance of priority of display) (col. 11; ll. 9-21) if the first display position (col. 6, ll. 8-20) is within the active display region of the display panel (col. 11, ll. 9-21).

Cherry fails to specifically disclose performing blanking processing if the first display position is not within the active display region of the display panel.

It would have been obvious to one of ordinary skill in the art to include performing blanking processing if the first display position is not within the active display region of the display panel with the method of Cherry because Cherry teaches refreshing during blanking interval (col. 13, ll. 20-37), which indicates that the data is input into the color maps prior to the data being used to determine active status.

One of skill in the art would have been motivated to include performing blanking processing if the first display position is not within the active display region of the display panel with the method of Cherry for the advantage of updating color data when the window data is not active.

As per dependent claim 100, Cherry discloses performing selective display processing if the first image and the second image are not both active at the first display position (i.e. when 1st or 2nd image, e.g. cursor and overlay, is active the color of one image is

processed for output) (col. 12, ll. 1-5); and performing composite display processing if the first image and the second image are both active at the first display position (i.e. when 1st and 2nd images, e.g. cursor and overlay, are active the color data is integrated) (col. 11, ll. 10-35).

As per dependent claim 101, Cherry discloses the first image (Fig. 5 "206") is active at the first display position (col. 10, ll. 20-27, i.e. cursor active) if the first display position is within a first display area to be occupied by the first image (i.e. position of data in a plane that is enabled to indicate further processing for display) (col. 10, ll. 8-13) and wherein the second image (fig. 5 "208") is active at the first display position (col. 10, ll. 55-60, i.e. overlay active) if the first display position is within a second display area to be occupied by the second image (i.e. position of data in a plane that is enabled to indicate further processing for display) (col. 10, ll. 50-55).

As per dependent claim 102, Cherry discloses selecting, as the first pixel of the output image, either a first pixel of the first image if only the first image is active at the first display position or a first pixel of the second image if only the second image is active at the first display position (i.e. when 1st or 2nd image, e.g. cursor and overlay, is active the color of one image is processed for output) (col. 12, ll. 1-5).

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As per dependent claims 103 and 105, Cherry discloses the first pixel of the first image is a pixel of the first image whose display location corresponds to the first display position and wherein the first pixel of the second image is a pixel of the second image whose display location corresponds to the first display position (i.e. the cursor, e.g. 1st image; and overlay, e.g. 2nd image, are active for the same buffer data) (col. 4, ll. 43-51; col. 11, ll. 8-12).

As per dependent claim 104, Cherry discloses a blend mode control for controlling the blending function (col. 11, ll. 54-65).

Cherry fails to specifically disclose blending a first pixel of the first image with a first pixel of the second image to generate the first pixel of the output image.

It would have been obvious to one of ordinary skill in the art to include blending a first pixel of the first image with a first pixel of the second image to generate the first pixel of the output image with the method of Cherry because Cherry teaches using a blender dominance output, which would resolve the dominance of blend priority of the cursor, e.g. 1st image, and overlay, e.g. 2nd image, with the image, e.g. video, data.

One of ordinary skill in the art would have been motivated to include blending a first pixel of the first image with a first pixel of the second image to generate the first pixel of the output image with the method of Cherry for the advantage of controlling the output of a digital image blender.

As per dependent claim 106, Cherry discloses selecting, as the first pixel of the output image, either a first pixel of the first image, a first pixel of the second image, or a blending of the first pixel of the first image and the first pixel of the second image (col. 4, l. 43-55; col. 11, l. 10-35; col. 11-12, ll. 55-10), based upon a processing control input (col. 13, l. 42-46), the processing control input indicating whether the first image is transparent or opaque, whether the second image is transparent or opaque, and whether the first image is on top of the second image (col. 13, l. 42-46; col. 10, ll. 18-22, e.g. cursor transparency; col. 10, l. 50-55, e.g. overlay transparency; col. 11, l. 10-35, e.g. resolving dominance for priority of display).

As per dependent claim 121, Cherry discloses performing blanking display processing if the display panel is in the blanking display mode (i.e. updating the color data during blanking intervals) (col. 4, l. 20-25), the first display position is within the active display region if the display panel is not in the blanking state (i.e. Resolving dominance of priority of display) (col. 11, l. 9-11).

Cherry fails to disclose determining whether the display panel is in a blanking state.

It would have been obvious to one of ordinary skill in the art to include determining whether the display panel is in a blanking state with the method of Cherry because Cherry teaches using start and stop registers to determine blanking intervals for

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updated color data (col. 13, I1.20-37) where the color data addresses correspond to output display location (col. 3, I1.10-15).

One of ordinary skill in the art would have been motivated to include determining whether the display panel is in a blanking state with the method of Cherry for the advantage of updating the display to indicate no active window data at a display location.

As per dependent claim 122, Cherry discloses the display panel is in the blanking state if the display panel is in a vertical blanking period (col. 4, II. 22-26; col. 13, II. 20-25).

As per dependent claim 124, Cherry discloses generating, based upon a blanking control input (i.e. the write of a command, e.g. (1)2) (col. 13, I1.26-27), either a blank signal, an end of active video (EAV) signal (i.e. a stop signal) (col. 13, II. 20-26), a start of active video (SAV) signal (i.e. a start signal) (col. 13, II. 20-26), a constant value, a previous output pixel, or a pixel of ancillary data.

As per dependent claim 126, Cherry discloses blending the plurality of images in a predetermined order (i.e. blending based on the display mode/order of overlay) (col. 4, II. 45-55).

As per dependent claim 127, Cherry discloses selecting an image from the plurality of images based on a plurality of factors (col. 4, II. 42-20).

As per independent claim 128, Cherry discloses a set of data buffers to store the plurality of images (Fig. 3 "202"). The rationale as applied in the rejection of claim 97 applies herein.

As per independent claim 129, Cherry discloses determining whether a first image (i.e. cursor) (Fig. 5, "206") and a second image (i.e. overlay) (Fig. 5 "208") are active (col. 10, ll. 20-27, cursor active and col. 10, ll. 55-60, overlay active) at a current display location on the display panel (i.e. color address determined) (col. 10, ll. 25-27, 58-60) (i.e. and the address corresponds to output display position) (col. 3, ll. 10-15); performing a first function (i.e. resolve color dominance) (col. 11, ll. 9-15) if the first image and the second image are both active at the current display location (i.e. when 1st and 2nd images, e.g. cursor and overlay, are active the color data is integrated) (col. 11, ll. 10-35); and performing a second function (i.e. selective blending) (col. 11-12, ll. 54-10).

Cherry fails to specifically disclose performing a second function if the first image and the second image are not both active at the current display location.

It would have been obvious for one of ordinary skill in the art to include performing a second function if the first image and the second image are not both active at the current display location because Cherry teaches when 1st or 2nd image, e.g. cursor and overlay, is active the color of one image is processed for output (col. 12, ll. 1-5).

One of ordinary skill in the art would have been motivated to include performing the second function if the first image and the second image are not both active at the current display location with the method of Cherry for the benefit of being able to pass the color of one of the images without blending.

As per dependent claim 130, Cherry discloses determining whether the current display location is within a first display area to be occupied by the first image (i.e. determining if the cursor data is active within the display window) (col. 10, ll.2-35) and a second display area to be occupied by the second image (i.e. determining if the overlay data is active within the display window) (col. 10, ll. 50-67).

As per dependent claim 131, Cherry discloses selecting, as the output image, either the first image if the first image is not transparent and to be displayed on top, the second image if the second image is not transparent and to be displayed on top (col. 4, ll. 42-50).

As per dependent claim 132, Cherry discloses selecting, as the output image, either the first image if the first image is active and the second image is not active at the current display location (col. 12, ll. 1-5) or the second image if the second image is active and the first image is not active at the current display location (i.e. when 1st or 2nd image,

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e.g. cursor and overlay, is active the color of one image is processed for output) (col. 12, I1.1-5).

Allowable Subject Matter

1. Claims 8-22,25,27,37,39-49 allowed.
2. Claims 107-120, 123, 125 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

3. Applicant's arguments filed 3/29/07 have been fully considered but they are not persuasive. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

The rejection under 35 U.S.C. 101 has been withdrawn.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chante Harrison whose telephone number is 571-272-7659. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on 571-272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Chante Harrison
Examiner
Art Unit 2628

Ch
June 11, 2007

A handwritten signature in black ink, appearing to read 'K. M. TUNG', with a long, sweeping horizontal stroke extending to the right.

KEE M. TUNG
SUPERVISORY PATENT EXAMINER